

Notice of Allowability

Application No.

09/741,724

Examiner

Chat C. Do

Applicant(s)

KRISHNAMACHARI ET AL.

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/09/2004.
2. ☒ The allowed claim(s) is/are 1,3-15 and 17-27.
3. ☒ The drawings filed on 20 July 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

REASONS FOR ALLOWANCE

1. Claims 1, 3-15, and 17-27 are allowed.
2. Claims 2, 16, and 28 are cancelled.
3. The rejection of claims 1, 3-15, and 17-27 made in the earlier Office action is withdrawn in view of applicant's arguments presented in the Appeal Brief filed 09/09/2004.

Re rejection under 35 USC 112, the applicant argues that the specification describes clearly the computational resource units are the computational resources available in the microprocessor of the decoder at any given time in term of CPU cycles, cache, memory size, memory bandwidth, coprocessor load, and the like in pages 4-5.

Re rejection under 35 USC 103, the applicant argues that the references do not disclose the present invention which scales video and still image decoding complexity with available computational resources comprising a step of selecting and performing either the direct multiplication or a shift-operation for multiplication depending on the system defined maximum quantity of computational resource units which are available in page 7.

4. The following is an examiner's statement of reasons for allowance:

The prior art of records fails to disclose a render an obviousness of a method and a decoder for scaling video and still image processing complexity in accordance with maximum available quantities of computation resource units comprising: obtaining a

Art Unit: 2124

predetermined quantity of computational resource; acquiring the maximum available quantity of resource for performing multiplication; performing direct multiplication if computational resource is sufficient; else performing the selected multiplication with the selected shift-operation as cited in independent claims 1, 15, and 27.

The closest found prior arts are Chen et al. (U.S. 5,999,958) and Riolfo (U.S. 4,849,922). Chen et al. disclose a device for computing discrete cosine transform and inverse discrete cosine transform using shift-operation for multiplication and Riolfo also discloses a circuit for computing the quantized coefficient discrete cosine transform of digital signal samples with cited number of operations per transformation. However, Chen et al. in view of Riolfo fails to disclose a step of determining and comparing the system resource unit with maximum resource for performing multiplication in order to select either direct multiplication or shift-operation for multiplication as cited above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chat C. Do whose telephone number is (571) 272-3721. The examiner can normally be reached on M => F from 7:00 AM to 5:30 PM.

Art Unit: 2124

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chaki Kakali can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chat C. Do
Examiner
Art Unit 2124

November 8, 2004


KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100